Cancel claim 1-9

10. An apparatus comprising:

an interface adapted to couple with a communication network;

a controller coupled to the interface;

a boot program executable by the controller;

a first operating code to control the apparatus;

a first memory coupled to the controller and adapted to store the boot program and the first operating code; and

a second memory coupled to the controller, the controller operable for executing the boot program to receive a plurality of packets from a remote computer coupled to the communication network and to check the validity of each packet of the plurality of packets and to store a portion of each packet in a second memory

coupled to the controller, and after receiving an upgrade command from the remote computer and after checking the validity, to replace the first operating code with a second operating code based on the portion of each packet stored in the second memory.

11. The apparatus of claim 10 further comprising a serial line interface coupled to the controller and adapted to couple with a local computer.

12. The apparatus of claim 10 wherein the interface includes a telephone line coupler.

13. The apparatus of claim 10 further comprising a data pump coupled to the controller.

14. The apparatus of claim 10 wherein the second memory includes random access memory (RAM).

15. The apparatus of claim 10 wherein the first memory includes programmable read only memory (PROM).

16. The apparatus of claim 10 further comprising a modem adapted for communicating with the remote computer.

17. A method comprising:

coupling a modem to a communication network;

executing a boot program of the modem;

executing a first operating code for the modem stored in a first memory of the modem based on an instruction executed by the boot program;

receiving a plurality of packets via the communication network;

checking validity of each packet of the plurality of packets;

storing a portion of each packet of the plurality of packets in a second memory of the modem; and

after receiving an upgrade command via the communication network, replacing the first operating code in the first memory with a second operating code based on the portion of each packet of the plurality of packets stored in the second memory.

18. The method of claim 17 further comprising executing the boot program after replacing the first operating code in the first memory with the second operating code.

19. The method of claim 17 wherein storing the portion of each packet of the plurality of packets in the second memory includes storing the portion in a location of the second memory based on an address of each packet.

20. The method of claim 17 further comprising copying the boot program to a random access memory.

21. The method of claim 17 wherein checking validity includes checking for errors.

22. The method of claim 17 further comprising generating a local checksum data byte at the modem.

23. The method of claim 22 further comprising receiving a remote checksum via the communication network and comparing the local checksum and the remote checksum.

24. The method of claim 17 further comprising executing a hard boot of the modem.

25. The method of claim 24 wherein executing the hard boot of the modem includes executing the second operating code.

26. The method of claim 17 wherein receiving the plurality of packets includes receiving a plurality of packets each packet having a field containing a packet length and a checksum.

27. A method comprising:

executing a first operating code stored in a first memory;

receiving a plurality of packets via a communication network, each packet having an address field having an address and an operating code field having a portion of program data;

checking each packet of the plurality of packets for validity;

for each packet, storing the portion of program data of the packet at an address of a second memory based on the address of the packet; and

after receiving an upgrade command via the communication network, replacing the first operating code in the first memory with a second operating code based on the program data stored in the second memory.

28. The method of claim 27 wherein checking each packet of the plurality of packets for validity includes comparing a checksum.

29. The method of claim 27 further comprising executing the first operating code if a packet of the plurality of packets includes an error.

30. The method of claim 27 wherein replacing the first operating code in the first memory with the second operating code includes reprogramming a flash programmable read only memory (PROM).